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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,934	10/30/2003	Xinming Shao	2448-000011	1038
27572	7590	05/24/2005	EXAMINER	
HARNES, DICKEY & PIERCE, P.L.C.			KRAMER, DEVON C	
P.O. BOX 828			ART UNIT	PAPER NUMBER
BLOOMFIELD HILLS, MI 48303			3683	

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/696,934

Applicant(s)

SHAO ET AL.

Examiner

Devon C Kramer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,10,14-16 and 25-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-9,11-13 and 17-24 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

EA

## DETAILED ACTION

### *Claim Objections*

- 1) Claim 10 is objected to because of the following informalities:

Claim 10 line 1, the status identifier in the claim is wrong, "original" should be – withdrawn--. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

- 2) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 3) Claims 1, 5-8, 11-13, 19-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumpkin (6244396) in view of Shibata et al (4926978).

In re claims 1, 5-8, 11, 13, 19-22, Lumpkin provides a brake pad (10) having a backing member (18) comprising: at least one first friction element (40) formed of a first friction material, at least one discrete second friction element (44) formed of a second friction material, the first friction element spaced from the second friction element, both friction elements being connected to the backing plate to form the brake pad, the first and second friction elements being interchangeable to achieve a desired frictional characteristic (abstract). Please note that the method is inherent to the structure. The friction elements of Lumpkin can be arranged so either the first or the second friction

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elements can be on either the inboard or outboard locations of the backing member.

Lumpkin lacks the specific friction materials claimed.

Shibata et al teaches the use of a peripheral first friction lining containing a non-asbestos organic material and a central second friction lining as a semi-metallic material, both friction materials having about the same hardness. (Col. 3 lines 10-34, Col. 5 lines 34-42).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the friction materials of Lumpkin with those as taught by Shibata et al in order to improve the friction characteristics of the pad and improve the braking properties depending on the environment of use.

In re claims 12 and 24, Lumpkin as modified by Shibata lacks the teaching of the pad shaped as an indicia of source.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have made the pad of Lumpkin as modified by Shibata in the shape of an indicia of source, since it has been held that matters relating to ornamentation only, which have no mechanical function, cannot be relied upon to patentably distinguish the claimed invention from the prior art. In re Seid, 161 F.2d 229, 73 USPQ 431 (CCPA 1947)

4) Claims 4, 9, 17-18 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumpkin (6244396) in view of Shibata et al (4926978) and further in view of Sugita et al (5503257).

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In re claims 4, 9, 17-18, 23, Lumpkin as modified by Shibata lack disc shaped friction elements or the friction elements spaced from one another.

Sugita et al teaches disc shaped friction elements (13a) spaced from one another.

It would have been obvious to have made the friction elements of Lumpkin as modified by Shibata et al disc shaped as taught by Sugita et al merely as a design choice and since it has been held that a change in shape is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) Further, disc shaped elements allow cooling air to pass around the friction surfaces thereby cooling the brake.

### ***Response to Arguments***

5) Applicant's arguments with respect to claims 1, 4-9, 11-13, 17-24 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C Kramer whose telephone number is 571-272-7118. The examiner can normally be reached on Mon-Fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Devon C Kramer  
Examiner  
Art Unit 3683

DK

**DEVON C. KRAMER**  
**PATENT EXAMINER**

*Devon C. Kramer*  
5/19/05